In re: Auvray

Inter'l Appl. No.:PCT/EP03/08827

Page 2 of 5

Amendments to the Claims:

1. (Original) A method for modyfing at least an electronic property of a nanotube or nanowire comprising exposing said nanotube or nanowire to an acid having the formula

$$\begin{matrix} R_1 \\ | \\ R_2 - C - COOH \\ | \\ R_3 \end{matrix}$$

wherein R_1 , R_2 and R_3 are chosen in the group comprising (H, F, Cl, Br, I) with at least one of R_1 , R_2 and R_3 being different from H.

- 2. (Original) A method according to claim 1 wherein $R_1 = F$.
- 3. (Original) A method according to claim 2 wherein $R_1 = R_2 = F$.
- 4. (Original) A method according to claim 3 wherein $R_1 = R_2 = R_3 = F$.
- 5. (Currently Amended) A method according to <u>claim 1</u>, any one of the preceeding elaims wherein at least part of said nanotube or nanowire is a channel region of a field effect transistor.
- 6. (Original) A method according to claim 5 wherein said nanotube or nanowire is submitted to said exposition after the transistor is formed.
- 7. (Original) A method according to claim 6 wherein at least one characteristic of the transistor is measured to monitor the modification of said at least an electronic property of the nanotube or nanowire.
- 8. (Original) A method according to claim 7 wherein said transistor has a back gate electrode that is used to monitor said exposure to an acid.
- 9. (Original) A method according to claim 8 wherein after the completion of said exposure, a dielectric layer is brought on at least part of the nanotube or nanowire.

In re: Auvray

Inter'l Appl. No.:PCT/EP03/08827

Page 3 of 5

10. (Original) A method according to claim 9 wherein at least one top gate electrode is brought on said dielectric layer.

- 11. (Original) A method according to claim 9 wherein said dielectric layer covers the whole surface of the nanotube or nanowire.
- 12. (Original) A method according to claim 6 wherein after said exposition the nanotube or nanowire is covered by an impervious layer.
- 13. (Original) A method as in claim 12 wherein said impervious layer is an oxide layer.
 - 14. (Original) A method as in claim 12 wherein said impervious layer is a resin layer.
- 15. (Original) A method according to claim 6 wherein the transistor has several gate insulating layer regions each having a gate electrode thereon, and wherein the regions of the nanotube or nanowire between said insulated layer regions are submitted to said exposure to an acid.
- 16. (Original) A method as in claim 15 wherein said nanotube or nanowire is in an undoped condition before being submitted to said exposure.
- 17. (Original) A P-type nanotube or nanowire having an absorbed substance that is an acid having the formula:

$$R_{2}$$
—C—COOH R_{3}

and wherein R_1 , R_2 and R_3 are chosen in the group comprising (H, F, Cl, Br, I) at least one of R_1 , R_2 and R_3 being different from H.

- 18. (Original) A nanotube or nanowire according to claim 17 wherein $R_1 = F$.
- 19. (Original) A nanotube according claim 18 wherein $R_1=R_2=F$.

In re: Auvray

Inter'l Appl. No.:PCT/EP03/08827

Page 4 of 5

- 20. (Original) A nanotube or nanowire according to claim 19 wherein $R_1 = R_2 = R_3 = F$.
- 21. (Currently Amended) A nanotube or nanowire according to <u>claim 17</u>, <u>wherein</u> any one of <u>claims 17 to 20</u> at least part of said nanotube or nanowire being a channel region of a field effect transistor having a source electrode, a drain electrode and at least one insulated gate electrode.
- 22. (Original) A nanotube or nanowire as in claim 21 wherein said transistor is a sensor for detecting said acid.
- 23. (Original) A nanotube or nanowire as in claim 21 wherein at least one insulated gate electrode is disposed over the nanotube or nanowire.
- 24. (Currently Amended) A nanotube or nanowire as in claim 23 comprising a plurality of insulated gate electrodes disposed on undoped regions of the nanotube or nanowire and being separated by regions in [[wich]] which a said acid is absorbed.
- 25. (Original) A nanotube or nanowire as in claim 21 wherein a said insulated gate electrode is constituted by a substrate covered by an insulating region on which the nanotube or nanowire is disposed.